Subject: Is there a fast way of histogramming RhoCandLists?
Posted by MartinJGaluska on Fri, 05 Sep 2014 10:50:49 GMT
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Dear all,

I would like to histogram multiple kinematical variables of multiple RhoCandLists within an analysis task. Instead of defining a lot of histograms or rerunning the task with slight modifications, I was wondering if there already exists a short cut.

I was thinking about a class which would only need the RhoCandList and a prefix as input and would take care of creating (using a vector for instance), filling and saving (to the output root file) the corresponding histograms itself.

Kind regards,
Martin

Subject: Re: Is there a fast way of histogramming RhoCandLists?
Posted by Lu Cao on Fri, 05 Sep 2014 20:18:11 GMT
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Hi Martin,
Do you mean RhoTuple? see more details here:https://
panda-wiki.gsi.de/foswiki/bin/view/Computing/PandaRootRhoTutorial#A_4._N
_45tuple_Analysis_using_RhoTuple

Best regards,
Lu

Subject: Re: Is there a fast way of histogramming RhoCandLists?
Posted by Ralf Kliemt on Fri, 05 Sep 2014 20:36:32 GMT
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There is even a faster way: The "QA Tools"

See how it is applied in macro/scrut/PndScrutAnaTask:
https://subversion.gsi.de/trac/fairroot/browser/pandaroot/trunk/macro/sc
rut/PndScrutAnaTask.cxx

```
RhoTuple* ntp1 = new RhoTuple("ntp1", "jpsi analysis");
if (ntp1) ntp1->GetInternalTree()->SetDirectory(gDirectory);
PndRhoTupleQA qa(fAnalysis,fIni.P());
...
        // dump information about composite candidate tree recursively (see
PndTools/AnalysisTools/PndRhoTupleQA)
        qa.qaComp("j", jpsi[j], ntp1);
```

You'll get many ntuples which follow s sort of naming code. First your prefix, here "j", and at the end the observable in play, such as px, py, pz, p, e, ... In between you'll find "d0" for the first daughter in your composite. This cascades down, so e.g. the momentum of the second dughter of the first daughter is labelled with "jd0d1p".

See also https://subversion.gsi.de/trac/fairroot/browser/pandaroot/trunk/PndTools/AnalysisTools/PndRhoTupleQA.h for all the automated possibilities.

Cheers
Ralf
